Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A method of generating a watermark signal for embedding in a multimedia signal, the method comprising ~~the steps of~~:

~~(a)~~ generating two sequences of values, the second sequence being a circularly shifted version of the first sequence; and

~~(b)~~ generating a watermark signal by adding the values of the first sequence to the respective values in the corresponding positions of the second sequence, wherein each value of the first and second sequences is represented by a pulse of width T_s so as to form rectangular wave signals.

2. (canceled)

3. (currently amended) The ~~A~~ method as claimed in claim 1~~2~~, wherein ~~in step (a)~~ a window shaping function is applied to convert each of the rectangular pulse train signals into respective smoothly varying signals, with the resulting smoothly varying signals being added ~~in step (b)~~ to form the watermark signal.

4. (currently amended) A method of generating a watermark signal for embedding in a multimedia signal, the method comprising:

generating two sequences of values, the second sequence being a circularly shifted version of the first sequence; and

generating a watermark signal by adding the values of the first sequence to the respective values in the corresponding positions of the second sequence~~A method as claimed in claim 1~~, wherein each one of said sequences of values is convolved with a window shaping function which has a width of at least T_s, so as to generate two smoothly varying signals, these smoothly varying signals being added together ~~in step (b)~~ so as to form the watermark signal.

5. (currently amended) The ~~A~~ method as claimed in claim 4, wherein said window shaping function has a band limited frequency behavior and a smooth temporal behavior.

6. (currently amended) The ~~A~~ method as claimed in claim 5, where the window shaping function has a symmetric or anti-symmetric temporal behavior.

7. (currently amended) The ~~A~~ method as claimed in claim 4, wherein said window shaping function comprises at least one of a raised cosine function and a bi-phase function.

8. (currently amended) The ~~A~~ method as claimed in claim 4, wherein the watermark signal is generated by the addition of the two smoothly varying signals with a relative delay of T_r, where $Tr < T_s$.

9. (currently amended) The ~~A~~ method as claimed in claim 8, wherein T_r is chosen such that maximum amplitude points of the first smoothly varying signal coincide with zero-crossings of the second smoothly varying signal, and vice-versa.

10. (currently amended) The ~~A~~ method as claimed in claim 1,wherein said watermark signal has a payload that is encoded in the combination of said two sequences of values.

11. (currently amended) An apparatus arranged to generate a watermark signal for embedding in a multimedia signal, the apparatus comprising: ~~(a)~~ a sequence generator arranged to use a first sequence of values to generate a second sequence of values, the second sequence being a circularly shifted version of the first sequence; ~~and (b)~~ a signal generator arranged to generate a watermark signal by adding the values of the first sequence to the respective values in the corresponding positions of the second sequence; and a signal conditioner arranged to convert each sequence of values into a smoothly varying signal.

12. (canceled)

13. (currently amended) The ~~An~~ apparatus as claimed in claim 11, wherein the apparatus is arranged to generate said first sequence of values by circularly shifting a primary sequence of values.

14. (currently amended) A method of embedding a watermark in a multimedia signal, the method comprising ~~the steps of~~: ~~(a)~~ generating a watermark signal equal to the sum of two sequences of values, the second sequence being a circularly shifted version of the first sequence of values; ~~(b)~~ generating a host modifying multimedia signal as a product of the watermark signal and the multimedia signal; and ~~(c)~~ generating a watermarked multimedia signal by adding a scaled version of said host modifying multimedia signal to the multimedia signal, wherein said scaled version of the host modifying signal is generated by controlling the scaling factor by a predetermined cost-function.

15. (canceled)

16. (currently amended) The ~~A~~ method as claimed in claim 14~~15~~, wherein said cost function comprises multiple scaling factors, each scaling factor being defined separately for one or more of the plurality of frequency bands in the multimedia signal.

17. (currently amended) The ~~A~~ method as claimed in claim 16, wherein said frequency bands are determined according to a model of the human auditory and/or visual system.

18. (currently amended) The ~~A~~ method as claimed in claim 14, wherein ~~in step (b)~~ said host modifying multimedia signal is generated by multiplying said watermark signal with an extracted portion of the multimedia signal.

19. (currently amended) The ~~A~~ method as claimed in claim 18, wherein said extracted portion of the multimedia signal is obtained by filtering at least a portion of the multimedia signal with respect to at least one of frequency, space and time.

20. (currently amended) The ~~A~~ method as claimed in claim 14, wherein the method further comprises ~~the steps of~~: ~~(d)~~ generating a second watermark signal equal to the sum of a third and a fourth sequences of values, the fourth sequence being a circularly shifted version of the third sequence of values; ~~(e)~~ extracting a second portion of the multimedia signal, the second portion being filtered such that it does not overlap with said first portion; ~~(f)~~ generating a watermarked multimedia signal by adding the product of the second watermark signal and the second extracted portion of the multimedia signal to the watermarked multimedia signal.

21 - 23. (canceled)

24. (currently amended) A method of detecting a watermark signal embedded in a multimedia signal, the method ~~comprising the steps of~~: ~~(a)~~ receiving a multimedia signal that may potentially be watermarked by a watermark signal modifying the temporal envelope of the host multimedia signal; applying a window shaping function to said received signal; ~~(b)~~ extracting an estimate of the watermark from said received signal; and ~~(c)~~ correlating the estimate of the watermark with a reference version of the watermark so as to determine whether the received signal is watermarked.

25. (canceled)

26. (currently amended) The ~~A~~ method as claimed in claim 24, wherein the watermark signal has a payload, and the method further comprises ~~the step of~~ determining the payload of the watermark.

27 - 31. (canceled)